

# Greenstar gas-fired heating and hot water solutions

---

## Product Guide **2018**



# Greenstar gas-fired product range

Our market-leading Greenstar gas-fired boilers are part of the total system solutions package we offer to installers. With state-of-the-art training facilities and award-winning technical support, we offer everything required to meet your heating and hot water needs.

This easy-to-use pocket guide is intended as a quick reference document focusing on essential technical information such as dimensions, outputs, flue options, accessories and product codes. Details of where to find more information, both online and in other literature, are included at relevant places throughout the guide.



Models shown: Greenstar 15Ri, 30CDi Classic System & 30Si Compact

# Contents

<b>Flues</b>	
Components	4 - 7
Terminal positioning	8 - 13
<b>Domestic gas boilers</b>	
Combi	14 - 23
System	24 - 29
Regular	30 - 37
<b>Controls</b>	
Wave	38
Greenstar Sense	39
Greenstar Comfort	40
Mechanical timers	41
Wiring modules	41
Compatibility matrix	42 - 43
<b>Accessories</b>	
Worcester CondenseSure	44
Greenstar System Filter	45
Keyless Filling Link	46
Greenstar Xtra FGHR Unit	46
Greenstar Low Loss Header	47
Vertical pre-piping assembly kits and earth bonding strip	47
Compatibility matrix	48 - 49
<b>Greenstore cylinders</b>	
Unvented	50 - 51
Solar compatible unvented	52 - 53
<b>Extended guarantees</b>	
	54 - 55
<b>Light commercial boilers</b>	
GB162	56 - 57
GB plate heat exchangers	58
Greenspring CWi47 water heater	59
<b>Bosch commercial products</b>	
	60 - 61
<b>Useful reference information</b>	
Worcester training	62 - 63
Useful contacts	64

# Wall-hung boilers – flue components



**condensfit II™**

100mm diameter		
	7 716 191 082	Standard telescopic flue & terminal (350 - 570mm)
	7 716 191 171	Long telescopic flue kit (570 - 790mm)
	7 719 002 430	Vertical 1,090mm BF kit (inc. adaptor)
	7 716 191 083	Extension flue kit (960mm)
	7 716 191 172	2m flue extension
	7 716 191 133	Short flue extension (220mm)
	7 716 191 084	90° flue bend
	7 716 191 085	45° flue bend
	7 719 002 432	High level horizontal flue adaptor
	7 733 600 048*	High level horizontal telescopic flue kit
	7 716 191 177	Support bracket kit
	7 716 191 178	Support bracket kit (6 pack)
	7 716 191 090	Flashing – flat roof
	7 716 191 091	Flashing – pitched roof
	7 716 191 086	Plume management kit (60mm dia.)















\*For use with high level horizontal flue adaptor.

125mm diameter		
	7 719 003 702	Standard telescopic flue & terminal (405 - 600mm)
	7 719 002 431	Vertical 1,365mm BF kit (inc. adaptor)
	7 719 003 666	Extension flue kit (960mm)
	7 719 003 664	90° flue bend
	7 719 003 665	45° flue bend
	7 719 002 433	High level horizontal flue adaptor
	7 716 191 179	Support bracket kit
	7 716 191 090	Flashing – flat roof
	7 716 191 091	Flashing – pitched roof

# Floor-standing boilers – flue components













## 100mm diameter

	7 716 191 155	Standard telescopic flue kit (310 - 530mm)
	7 716 191 156	Vertical 1,140mm BF kit (inc. adaptor)
	7 716 191 083	Extension flue kit (960mm)
	7 716 191 172	2m flue extension
	7 716 191 133	Short flue extension (220mm)
	7 716 191 084	90° flue bend
	7 716 191 085	45° flue bend
	7 716 191 164	Vertical flue adaptor
	7 733 600 048*	High level horizontal telescopic flue kit
	7 716 191 177	Support bracket kit
	7 716 191 178	Support bracket kit (6 pack)
	7 716 191 090	Flashing – flat roof
	7 716 191 091	Flashing – pitched roof
	7 716 191 086	Plume management kit (60mm dia.)

\*For use with high level horizontal flue adaptor and flue adaptor part number 8 718 682 324 0.

## 125mm diameter

	7 716 191 157	Standard horizontal flue kit (965mm)
	7 716 191 158	Vertical 1,365mm BF kit (inc. adaptor)
	7 719 003 666	Extension flue kit (960mm)
	7 719 003 664	90° flue bend
	7 719 003 665	45° flue bend
	7 716 191 165	Vertical flue adaptor
	7 716 191 179	Support bracket kit
	7 716 191 090	Flashing – flat roof
	7 716 191 091	Flashing – pitched roof
	7 716 191 159	80mm flexible flue system (12m)

# Condensfit II™ plume management system

## Part numbers

### **60mm dia. plume management kit**







Comprises:

- 1 x terminal bend
- 1 x extension 500mm
- 1 x outlet assembly
- 1 x clamp pack

**7 716 191 086**



## Accessories

Components	Part no.	Description
60mm diameter		
	7 716 191 086	Plume management kit (60mm dia.)
	7 716 191 087	Extension (1,000mm) kit
	7 716 191 088	90° Bend
	7 716 191 089	45° Bend (pair)
	7 716 191 176	Plume management terminal guard round
	8 716 111 2750	Plume management clamp

**For every 90° plume management kit bend deduct 1,500mm and 750mm for every 45° plume management kit bend.**

Flexible flue system

## Flexible flue system –

for Greenstar FS CDi Regular models only

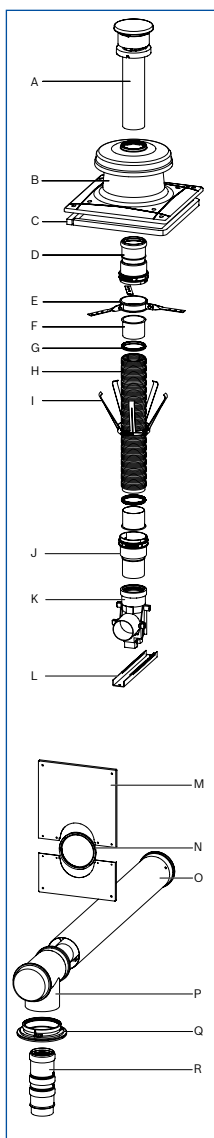
### Part numbers

**80mm flexible flue system  
(12m length – can be cut  
down to suit)**

Comprises:

- 1 x flue terminal (A)
- 1 x chimney cowl (B)
- 1 x self-adhesive  
weather seal (C)
- 1 x terminal adaptor (D)
- 1 x support bracket assembly (E)
- 2 x liner (F)
- 2 x seal (G)
- 1 x flexible liner (H)
- 4 x centralising spacers (I)
- 1 x support bend adaptor (J)
- 1 x support bend (K)
- 1 x bend support (L)
- 2 x flue inspection plates (M)
- 1 x seal for flue inspection  
plates (N)
- 1 x 125mm flue extension (O)
- 1 x tee piece (P)
- 1 x 125mm flue connector (Q)
- 1 x 80/80mm flue adaptor (R)

**7 716 191 159**



# Flue terminal positioning

1. The terminal must not cause an obstruction nor the discharge a nuisance. Particular care should be exercised with regards to the plumbing of the flue gases and any increase in noise levels.
2. If a terminal is fitted less than 2 metres above a surface to which people have access, then a guard must be fitted. The terminal guard must be securely fixed to the wall using suitable plugs and corrosion resistant screws. The guard must be symmetrically positioned about the terminal assembly and spaced such that there is a gap of 50mm between the end of the terminal and the guard. This applies to the air intake and exhaust terminal when a plume management kit is used.
3. In certain weather conditions, a white plume of condensation will be emitted from the flue terminal and siting where this could be a nuisance should be avoided e.g. near security lighting.
4. The air inlet/outlet duct and the terminal of the boiler must not be closer than 25mm to any combustible material. Detailed recommendations on protection of combustible materials are given in BS 5440:1.

The flue system must be installed and terminated in accordance with the recommendations of BS 5440:Part 1.

**Peel back page to reveal  
Flue Terminal Positioning Diagram**



## Note

- All measurements are the minimum clearances required
- Terminals must be positioned so as to avoid combustion products entering the building
- Support the flue at approximately one metre intervals and at a change of direction, use suitable brackets and fittings.

Flue support bracket kit part numbers:

**7 716 191 177 (100mm dia.)**

**7 716 191 178 (100mm dia. x 6)**

**7 716 191 179 (125mm dia.)**

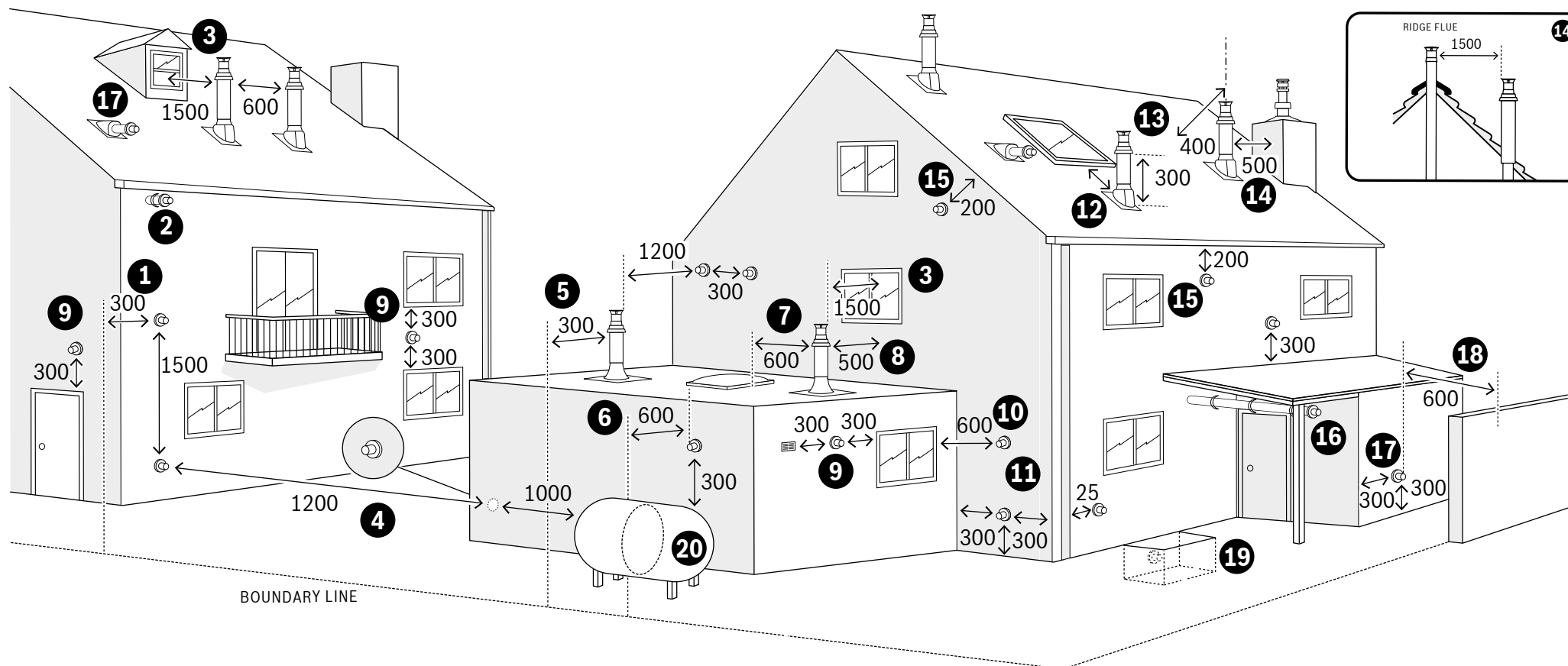
## Key to illustration

1. 300mm adjacent to a boundary line.
2. The dimension below eaves, balconies and car ports can be reduced to 25mm, as long as the flue terminal is extended to clear any overhang. Flue should be 100mm beyond gutter. External flue joints must be sealed with suitable silicon sealant.
3. 1,500mm between a vertical flue terminal and a window or dormer window.
4. 1,200mm between terminals facing each other.
5. Vertical flue clearance, 300mm adjacent to a boundary line.
6. 600mm distance to a boundary line, unless it will cause a nuisance. BS 5440:Part 1 recommends that care is taken when siting terminal in relation to boundary lines.
7. 600mm minimum clearance from a skylight to a vertical flue.
8. Vertical flue clearance, 500mm to non-combustible building material, and 1,500mm clearance to combustible building material.
9. 300mm above, below and either side of an opening door, air vent or opening window.
10. 600mm diagonally to an opening door, air vent or opening window.
11. 300mm to an internal or external corner.
12. 2,000mm below a Velux window, 600mm above or to either side of the Velux window.
13. 400mm from a pitched roof or 500mm in regions with heavy snowfall.
14. 500mm clearance to any vertical structure on a roof, 600mm to room sealed flue or 1,500 to an open flue.
15. 200mm below eaves and 75mm below gutters, pipe and drains.
16. The dimension below eaves, balconies and car ports can be reduced to 25mm, as long as the flue terminal is extended to clear any overhang. Flue should be 100mm beyond gutter. External flue joints must be sealed with suitable silicon sealant.
17. Flue clearance must be at least 300mm from the ground. Terminal guards must be fitted if the flue is less than 2 metres from the ground or if a person could come into contact with the flue terminal.
18. 600mm distance to a surface facing a terminal, unless it will cause a nuisance. BS 5440: Part 1 recommends that care is taken when siting terminals in relation to surfaces facing a terminal.

# Flue terminal positioning

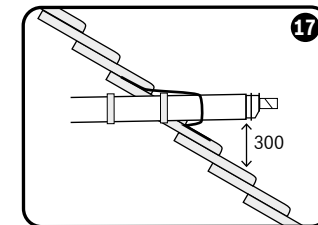
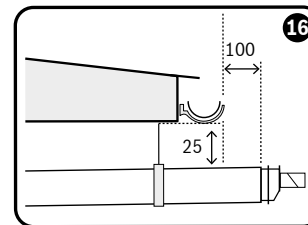
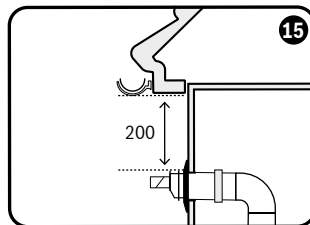
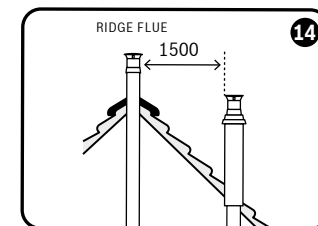
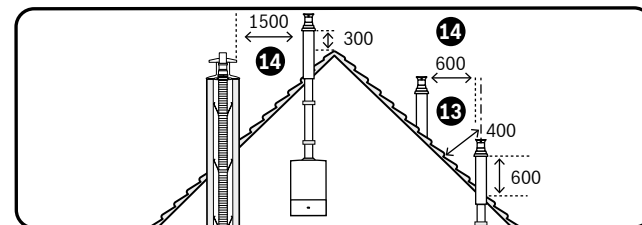
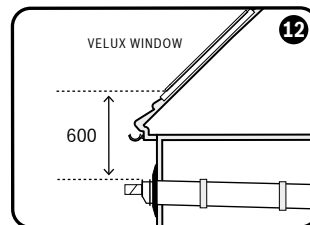
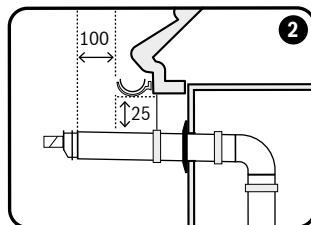
All measurements in millimetres

- Installations in car ports are not recommended
- The flue cannot be lower than 1,000mm from the top of a light well due to the build up of combustion products
- Dimensions from a flue terminal to a fanned air inlet to be determined by the ventilation equipment manufacturer.



19. Below ground level in an open lightwell. The flue must be at least 600mm from the opposing surface and have at least 300mm clearance either side and below. The flue terminal must be no more than 1,000mm from the top of the lightwell.

20. Flues should clear any LPG storage by 1,000mm horizontally and 300mm above.



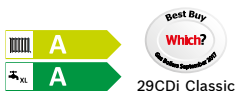
### ***Plume management***

Plume management kits are available for 100mm horizontally terminated flues. Please refer to the installation instructions supplied with the plume management kits.

For more information on Worcester's plume management options, including reduced flue terminal clearances, please read the relevant boiler technical and specification brochure.

# Wall mounted condensing combi boilers

## Greenstar CDi Classic series



Dimensions	
Width	440mm
Height	760mm
Depth	360mm
Clearances	
Above flue	30mm
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing.  
Same clearances for ventilated and unventilated compartments.

### Models and outputs

Max DHW output (kW)	Flow rate (l/min)		CH output (kW)	Part no.
	ΔT 40°C^	ΔT 35°C#		
Greenstar 29CDi Classic				
30.9	11	12.3	7.7 to 30	NG 7 738 100 248
				LPG 7 738 100 249
Greenstar 34CDi Classic				
35	12	14.3	7.7 to 30	NG 7 738 100 250
				LPG 7 738 100 251
Greenstar 38CDi Classic				
40	14	16.4	9.4 to 30	NG 7 738 100 252
				LPG 7 738 100 253
Greenstar 42CDi Classic				
42	15	17.2	9.4 to 30	NG 7 738 100 246
				LPG 7 738 100 247

<sup>^</sup>40°C – Designed operational flow rate. <sup>#</sup>35°C – Values for industry comparisons.

**DID YOU KNOW**

The industry standard is to quote hot water flow rates at a 35°C rise. However all combi boilers are designed to run at a 40°C rise, therefore we show both figures.

## Flue lengths

Maximum flue lengths inc. terminal (mm)					
Diameter	Direction	29CDi	34CDi	38CDi	42CDi
100mm	Horizontal	7,900	7,000	6,000	6,000
	Vertical	9,400	8,000	7,500	7,500
125mm	Horizontal	18,500	16,000	12,500	12,000
	Vertical	18,500	16,000	16,000	16,000

**Note: 60/100mm – for every 90° flue bend deduct 1,500mm and 750mm for every 45° flue bend. 80/125mm – for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	ErP water heating efficiency class*	SAP efficiency – NG	SAP comparative hot water efficiency
<b>Greenstar 29CDi Classic</b>				
47.5kg	A / 92%	A	89.1%	71.2
<b>Greenstar 34CDi Classic</b>				
47.5kg	A / 92%	A	89.1%	72.3
<b>Greenstar 38CDi Classic</b>				
47.5kg	A / 92%	A	89.0%	71.5
<b>Greenstar 42CDi Classic</b>				
47.5kg	A / 92%	A	89.4%	72.0

\*Declared load profile XL



**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



Learn how to connect both Worcester and third party controls to a CDi Classic. Visit [youtube.com/WorcesterBoschGroup](https://www.youtube.com/WorcesterBoschGroup) to see this and many other videos.

# Wall mounted condensing combi boilers

## Greenstar CDi Compact series



28CDi Compact

Dimensions	
Width	390mm
Height	690mm
Depth	280mm
Clearances	
Above flue	30mm <sup>†</sup>
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

<sup>†</sup>Or measured 170mm from the top of the boiler cabinet. \*20mm from a removable cupboard door, 600mm from a fixed surface for servicing. Same clearances for ventilated and unventilated compartments.

### Models and outputs

Max DHW output (kW)	Flow rate (l/min)		CH output (kW)	Part no.
	ΔT 40°C^	ΔT 35°C#		
Greenstar 28CDi Compact				
28	10.0	11.4	7.03 to 24	NG 7 733 600 054
				LPG 7 733 600 057
Greenstar 32CDi Compact				
32	11.5	13.1	7.03 to 24	NG 7 733 600 055
				LPG 7 733 600 058
Greenstar 36CDi Compact				
36	12.9	14.7	7.03 to 24	NG 7 733 600 056
				LPG 7 733 600 059

<sup>^</sup>40°C – Designed operational flow rate. <sup>#</sup>35°C – Values for industry comparisons.



Our tech support team offers video calling on your smart device via Bosch Insight.

## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	CDi Compact series
100mm	Horizontal	6,000
	Vertical	6,000
125mm	Horizontal	15,000
	Vertical	15,000

**Note: For every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	ErP water heating efficiency class†	SAP efficiency – NG	SAP comparative hot water efficiency
<b>Greenstar 28CDi Compact</b>				
32.9kg	A / 94%	A	89.8%	74.9
<b>Greenstar 32CDi Compact</b>				
32.9kg	A / 94%	A	89.8%	75.0
<b>Greenstar 36CDi Compact</b>				
32.9kg	A / 94%	A	89.8%	74.7

†Declared load profile XL



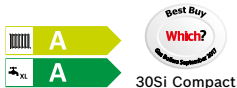
**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



Download one page handouts for each boiler, to give to your customer. Visit the product pages at [worcester-bosch.co.uk/professional](http://worcester-bosch.co.uk/professional)

# Wall mounted condensing combi boilers

## Greenstar Si Compact series



Dimensions	
Width	390mm
Height	690mm
Depth	280mm
Clearances	
Above flue	30mm <sup>†</sup>
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

<sup>†</sup>Or measured 170mm from the top of the boiler cabinet. \*20mm from a removable cupboard door, 600mm from a fixed surface for servicing. Same clearances for ventilated and unventilated compartments.

### Models and outputs

Max DHW output (kW)	Flow rate (l/min)		CH output (kW)	Part no.
	ΔT 40°C^	ΔT 35°C#		
Greenstar 25Si Compact				
25	8.9	10.2	7.03 to 24	NG 7 733 600 050
				LPG 7 733 600 051
Greenstar 30Si Compact				
30	10.7	12.3	7.03 to 24	NG 7 733 600 052
				LPG 7 733 600 053

<sup>^</sup>40°C – Designed operational flow rate. <sup>#</sup>35°C – Values for industry comparisons.



Working with Worcester, Bosch Commercial and Industrial offers outputs from 50kW to 38,000kW, as well as VRF and RAC offerings.



## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	Si Compact series
100mm	Horizontal	6,000
	Vertical	6,000
125mm	Horizontal	15,000
	Vertical	15,000

**Note: For every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	ErP water heating efficiency class†	SAP efficiency – NG	SAP comparative hot water efficiency
<b>Greenstar 25Si Compact</b>				
32.9kg	A / 94%	A	89.8%	74.7
<b>Greenstar 30Si Compact</b>				
32.9kg	A / 94%	A	89.8%	74.2

†Declared load profile XL



**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



Follow us on social media for all the latest news and views.

## Wall mounted condensing combi boilers

# Greenstar i series



Dimensions	
Width	400mm
Height	710mm
Depth	330mm max
Clearances	
Above flue	30mm
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing. Same clearances for ventilated and unventilated compartments.

## Models and outputs

Max DHW output (kW)	Flow rate (l/min)		CH output (kW)	Part no.
	ΔT 40°C^	ΔT 35°C#		
Greenstar 25i				
25	9	10.2	7.2 to 24†	NG 7 733 600 012
				LPG 7 733 600 031
Greenstar 30i				
30	10.8	12.3	7.2 to 24†	NG 7 733 600 005
				LPG 7 733 600 032

<sup>^</sup>40°C – Designed operational flow rate. <sup>#</sup>35°C – Values for industry comparisons.

<sup>†</sup>13kW with low NOx code plug fitted.



Any Greenstar control purchased with a Greenstar boiler will acquire the same guarantee as the boiler.

## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	Greenstar i series
100mm	Horizontal	4,600
	Vertical	6,400
125mm	Horizontal	13,000
	Vertical	15,000

**Note: For every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	ErP water heating efficiency class†	SAP efficiency – NG	SAP comparative hot water efficiency
<b>Greenstar 25i</b>				
31.7kg	A / 94%	A	89.6%	73.2
<b>Greenstar 30i</b>				
31.7kg	A / 94%	A	89.6%	72.1

†Declared load profile XL



**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



Find out who your local Technical Support Manager is at  
**[worcester-bosch.co.uk/myTSM](http://worcester-bosch.co.uk/myTSM)**

# Floor standing condensing combi boilers

## Greenstar Highflow CDi series



Dimensions	
Width	600mm
Height	850mm
Depth	600mm
Clearances	
Above	15mm
Left	5mm
Right	5mm
Front	25mm*

\*600mm required for servicing. Refer to Tech & Spec for unventilated clearances.

### Models and outputs

Max DHW output (kW)	Flow rate (l/min)	CH output (kW)	Part no.
Greenstar Highflow 440CDi			
29.5	20#	7.4 to 29.2	NG 7 731 600 098
			LPG 7 731 600 099
Greenstar Highflow 550CDi			
41.1	25#	9.7 to 30.6	NG 7 731 600 100
			LPG 7 731 600 101

#Flow rate shown is only until the heat store is depleted.



Our Greenstar System Filter is available in 22mm and 28mm variants.

## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	Highflow CDi series
100mm	Horizontal	4,000
	Vertical	6,400
125mm	Horizontal	13,000
	Vertical	15,000

**Note: 60/100mm – for every 90° flue bend deduct 1,500mm and 750mm for every 45° flue bend. 80/125mm – for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 5.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	ErP water heating efficiency class†	SAP efficiency – NG	SAP comparative hot water efficiency
<b>Greenstar Highflow 440CDi</b>				
112kg	A / 92%	B	89.2%	61.7
<b>Greenstar Highflow 550CDi</b>				
112kg	A / 92%	B	89.2%	61.7

†Declared load profile XL



**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



In partnership with local colleges, we offer a range of training courses – find your nearest here  
**[worcester-bosch.co.uk/colleges](http://worcester-bosch.co.uk/colleges)**

Wall mounted condensing system boiler

## Greenstar CDi Classic System series



A



30CDi Classic System

Dimensions	
Width	440mm
Height	760mm
Depth	360mm
Clearances	
Above flue	30mm
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing. Same clearances for ventilated and unventilated compartments.

### Models and outputs

CH output (kW)	Part no.
Greenstar 30CDi Classic System	
7.7 to 30	NG 7 738 100 244
	LPG 7 738 100 233
Greenstar 35CDi Classic System	
7.7 to 34	NG 7 738 100 236
	LPG 7 738 100 237

**System boilers using Worcester control options are incompatible with Y or S Plan systems and must have the optional Diverter Valve Kit fitted.**

**DID  
YOU  
KNOW**

A dedicated spares team and a network of profile spares stockists across the UK means we offer 98% availability.

## Optional diverter valve kits

Description	Part no.
Optional Diverter Valve Kit – 30kW	7 719 002 746
Optional Diverter Valve Kit – 35kW	7 738 112 011

## Flue lengths

Maximum flue lengths inc. terminal (mm)			
Diameter	Direction	30CDi	35CDi
100mm	Horizontal	7,900	7,000
	Vertical	9,400	8,000
125mm	Horizontal	18,500	16,000
	Vertical	18,500	16,000

**Note: 60/100mm – for every 90° flue bend deduct 1,500mm and 750mm for every 45° flue bend. 80/125mm – for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	SAP efficiency – NG
<b>Greenstar 30CDi Classic System</b>		
46.5kg	A / 92%	89.2%
<b>Greenstar 35CDi Classic System</b>		
46.5kg	A / 92%	89.2%



**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



Keep updated with product installation news and tips by subscribing to our Technical Bulletins at [worcester-bosch.co.uk/tb](http://worcester-bosch.co.uk/tb)

Wall mounted condensing system boilers

# Greenstar 9i System - 24i System series



A



24i System

Dimensions	
Width	400mm
Height	710mm
Depth	330mm
Clearances	
Above flue	30mm
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing.  
Same clearances for ventilated and unventilated compartments.

## Models and outputs

CH output (kW)	Part no.
Greenstar 9i System	
3.1 to 9.2	NG 7 733 600 011
	LPG 7 733 600 033
Greenstar 12i System	
3.1 to 12.2	NG 7 733 600 010
	LPG 7 733 600 034
Greenstar 15i System	
4.6 to 15.3	NG 7 733 600 009
	LPG 7 733 600 035
Greenstar 18i System	
4.6 to 18.4	NG 7 733 600 008
	LPG 7 733 600 036
Greenstar 21i System	
7.2 to 21.6	NG 7 733 600 007
	LPG 7 733 600 037
Greenstar 24i System	
7.2 to 24.6	NG 7 733 600 006
	LPG 7 733 600 038

**System boilers using Worcester control options are incompatible with Y or S Plan systems and must have the optional Diverter Valve Kit fitted.**



## Optional diverter valve kit

Description	Part no.
Optional Diverter Valve Kit – 9 to 24kW	7 733 600 089

## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	9i System - 24i System series
100mm	Horizontal	4,600
	Vertical	6,400
125mm	Horizontal	13,000
	Vertical	15,000

**Note: for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	SAP efficiency – NG
<b>Greenstar 9i System</b>		
30.9kg	A / 94%	89.8%
<b>Greenstar 12i System</b>		
30.9kg	A / 94%	89.8%
<b>Greenstar 15i System</b>		
30.9kg	A / 94%	89.7%
<b>Greenstar 18i System</b>		
30.9kg	A / 94%	89.7%
<b>Greenstar 21i System</b>		
30.9kg	A / 94%	89.7%
<b>Greenstar 24i System</b>		
30.9kg	A / 94%	89.7%



**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



Use our online ErP tool to create product and system fiche labels – **[worcester-bosch.co.uk/erp](http://worcester-bosch.co.uk/erp)**.

Wall mounted condensing system boilers

## Greenstar 27i System – 30i System series



Dimensions	
Width	390mm
Height	690mm
Depth	280mm
Clearances	
Above flue	30mm
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

*\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing. Same clearances for ventilated and unventilated compartments.*

### Models and outputs

CH output (kW)	Part no.
Greenstar 27i System	
7.03 to 27	NG 7 733 600 060
	LPG 7 733 600 061
Greenstar 30i System	
7.03 to 30	NG 7 733 600 062
	LPG 7 733 600 063

***System boilers using Worcester control options are incompatible with Y or S Plan systems and must have the optional Diverter Valve Kit fitted.***

**DID  
YOU  
KNOW**

Each boiler that leaves our factory goes through more than 20 product tests.

## Optional diverter valve kits

Description	Part no.
Optional Diverter Valve Kit – 27kW	7 733 600 220
Optional Diverter Valve Kit – 30kW	7 733 600 221

## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	27i System & 30i System
100mm	Horizontal	6,000
	Vertical	6,000
125mm	Horizontal	15,000
	Vertical	15,000

**Note: for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	SAP efficiency – NG
<b>Greenstar 27i System</b>		
27.3kg	A / 92%	89.0%
<b>Greenstar 30i System</b>		
27.3kg	A / 92%	89.0%



**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



We have mobile training vans up and down the country.  
Visit [worcester-bosch.co.uk/mobile-training](http://worcester-bosch.co.uk/mobile-training)

Wall mounted condensing regular boilers

# Greenstar CDi Classic Regular series



A



40CDi Classic  
Regular

Dimensions	
Width	440mm
Height	760mm
Depth	360mm
Clearances	
Above flue	30mm
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing.  
Same clearances for ventilated and unventilated compartments.

## Models and outputs

CH output (kW)	Part no.
Greenstar 30CDi Classic Regular	
7.7 to 30	NG 7 738 100 245
	LPG 7 738 100 235
Greenstar 40CDi Classic Regular	
9.4 to 40.8	NG 7 738 100 232
	LPG 7 738 100 234

**DID  
YOU  
KNOW**

Greenstar regular and system boilers can be installed in a cascade using the low loss header accessory – see page 47.

## Flue lengths

Maximum flue lengths inc. terminal (mm)			
Diameter	Direction	30CDi Classic Regular	40CDi Classic Regular
100mm	Horizontal	7,900	6,000
	Vertical	9,400	7,500
125mm	Horizontal	18,500	12,500
	Vertical	18,500	16,000

**Note: 60/100mm – for every 90° flue bend deduct 1,500mm and 750mm for every 45° flue bend. 80/125mm – for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	SAP efficiency – NG
<b>Greenstar 30CDi Classic Regular</b>		
39.5kg	A / 92%	89.2%
<b>Greenstar 40CDi Classic Regular</b>		
39.5kg	A / 92%	89.2%



**See page 48 for relevant accessories.**



For information on higher output boilers for small commercial projects, visit **bosch-industrial.co.uk**.

## Wall mounted condensing regular boilers

# Greenstar 12Ri - 24Ri series



A



15Ri

Dimensions	
Width	390mm
Height	600mm
Depth	270mm
Clearances	
Above flue	30mm
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing.  
Refer to Tech & Spec for unventilated clearances.

## Models and outputs

CH output (kW)	Part no.
<b>Greenstar 12Ri</b>	
4 to 12	NG 7 733 600 074
	LPG 7 733 600 075
<b>Greenstar 15Ri</b>	
5 to 15	NG 7 733 600 072
	LPG 7 733 600 073
<b>Greenstar 18Ri</b>	
6 to 18	NG 7 733 600 070
	LPG 7 733 600 071
<b>Greenstar 24Ri</b>	
8 to 24	NG 7 733 600 068
	LPG 7 733 600 069

**DID  
YOU  
KNOW**

We have a state-of-the-art £1.5m training academy in Wakefield.

## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	12Ri - 24Ri series
100mm	Horizontal	4,600
	Vertical	6,400
125mm	Horizontal	13,000
	Vertical	15,000

**Note: for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	SAP efficiency – NG
<b>Greenstar 12Ri</b>		
22.6kg	A / 91%	88.8%
<b>Greenstar 15Ri</b>		
22.6kg	A / 91%	88.8%
<b>Greenstar 18Ri</b>		
22.6kg	A / 91%	88.8%
<b>Greenstar 24Ri</b>		
22.6kg	A / 92%	89.2%



**See page 48 for relevant accessories.**



Come and watch Greenstar gas-fired boilers being manufactured. Book your factory tour here – [worcester-bosch.co.uk/factory](http://worcester-bosch.co.uk/factory).

## Wall mounted condensing regular boilers

# Greenstar 27Ri - 30Ri series



Dimensions	
Width	390mm
Height	600mm
Depth	270mm
Clearances	
Above flue	30mm
Left	5mm
Right	5mm
Below	200mm
Front	20mm*

\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing.  
Same clearances for ventilated and unventilated compartments.

## Models and outputs

CH output (kW)	Part no.
<b>Greenstar 27Ri</b>	
7.03 to 27	NG 7 733 600 064
	LPG 7 733 600 065
<b>Greenstar 30Ri</b>	
7.03 to 30	NG 7 733 600 066
	LPG 7 733 600 067



We offer a Commercial ACS training and assessment.  
Visit [worcester-bosch.co.uk/training](http://worcester-bosch.co.uk/training) or call  
**0330 123 0166** to find out more.



## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	27Ri & 30Ri
100mm	Horizontal	6,000
	Vertical	6,000
125mm	Horizontal	15,000
	Vertical	15,000

**Note: for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 4.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	SAP efficiency – NG
<b>Greenstar 27Ri</b>		
22.7kg	A / 92%	89.0%
<b>Greenstar 30Ri</b>		
22.7kg	A / 93%	89.0%



**For details of compatible controls see page 42.  
See page 48 for relevant accessories.**



For information on higher output boilers for small commercial projects, visit **bosch-industrial.co.uk**

Floor standing condensing regular boilers

## Greenstar FS CDi Regular series



Dimensions	
Width	400mm
Height	850mm
Depth	600mm
Clearances	
Above	15mm
Left	5mm
Right	5mm
Front	25mm*

\*600mm to a removable door for servicing. Refer to Tech & Spec for unventilated clearances.

### Models and outputs

CH output (kW)	Part no.
Greenstar FS 30CDi Regular	
7.7 to 30	NG 7 731 600 102
	LPG 7 731 600 103
Greenstar FS 42CDi Regular	
9.6 to 40.8	NG 7 731 600 104
	LPG 7 731 600 105



Greenstar regular and system boilers can be installed in a cascade using the low loss header accessory – see page 47.

## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	FS 30CDi Regular & FS 42CDi Regular
100mm	Horizontal	4,000
	Vertical	6,400
125mm	Horizontal	13,000
	Vertical	15,000

**Note: 60/100mm – for every 90° flue bend deduct 1,500mm and 750mm for every 45° flue bend. 80/125mm – for every 90° flue bend deduct 2,000mm and 1,000mm for every 45° flue bend.**



**For details of flue components see page 5.**

## Model weights and efficiencies

Weight – lift	ErP space heating efficiency class	SAP efficiency – NG
<b>Greenstar FS 30CDi Regular</b>		
55.1kg	A / 92%	88.9%
<b>Greenstar FS 42CDi Regular</b>		
55.1kg	A / 92%	88.8%



**See page 48 for relevant accessories.**



For more information on higher output boilers for small and medium commercial projects, visit **[bosch-industrial.co.uk](http://bosch-industrial.co.uk)**

# Controls

To find out which Greenstar boilers are compatible with our range of optional plug-in controls, see pages 42-43.

## Wave smart internet-connected control

Part no. 7 716 192 072



- ✔ Enables an A+ ErP package efficiency rating for heating.
- ✔ Charts heating and hot water usage so the homeowner can identify potential savings.
- ✔ Unlike most other smart heating controls, the Wave can also programme the hot water settings.
- ✔ Self-learning technology – the Wave will remember when a homeowner changes the demand for heating and will automatically create the CH programme and then adjust it as a homeowner's behaviour changes.
- ✔ Easy to install – requires a 2-core wire connection between the control and the boiler.
- ✔ Does not need an external wired sensor unlike standard weather compensation controls.



The Wave is a Class V control giving a 3% system efficiency benefit by default. When the weather compensation feature is enabled, it increases to 4% and becomes a Class VI control.

## Greenstar Sense control



### ***Greenstar Sense II weather compensation controller***

Part no. 7 738 111 064

- ✔ Intelligently interacts with the boiler to provide weather compensation via a wired outdoor sensor.
- ✔ Solar thermal optimisation in conjunction with MS100 solar module.
- ✔ Displays the amount of energy recovered from a solar system.
- ✔ Service reminder function.

*†4% saving is achieved when installed as a room thermostat;  
2% when installed in the boiler fascia.*

## Greenstar Comfort controls



### **Greenstar Comfort plug-in twin channel programmer**

Part no. 7 733 600 003

- ✔ Simple menu navigation
- ✔ Heating programme visualisation bar
- ✔ 7-day time control for heating and hot water.



### **Greenstar Comfort I RF wireless room thermostat and plug-in twin channel programmer**

Part no. 7 733 600 001

All the features of **Comfort PLUS...**

- ✔ Enhanced load compensation for increased efficiency.
- ✔ Quick installation – no wiring required
- ✔ Extremely reliable RF signal.



### **Greenstar Comfort II RF wireless programmable room thermostat and plug-in RF receiver**

Part no. 7 733 600 002

All the features of **Comfort & Comfort I PLUS...**

- ✔ 6 adjustable heating temperatures per day
- ✔ Set programme at the room thermostat
- ✔ Remote access to boiler diagnostic codes
- ✔ Optional wall plate available, 7 733 600 039.

## Mechanical timers



### ***MT10 mechanical timer\****

Part no. 7 716 192 036

- ✔ Analogue clock for setting on and off times for heating.

### ***MT10RF mechanical RF thermostat\****

Part no. 7 716 192 037

- ✔ Analogue display has comfort and economy time and temperature periods
- ✔ No wiring.



## Wiring modules



### ***MS100 intelligent solar module***

Part no. 7 738 110 144

- ✔ Specially designed interface that integrates a solar heating system with a gas-fired system boiler.
- ✔ Works in conjunction with a solar-compatible weather or load compensation unit such as the Sense II.

### ***Greenstar Wiring Centre***

Part no. 7 738 110 116

- ✔ Allows wireless room thermostats to be used with a regular boiler.
- ✔ Pump is wired direct and not to the boiler – saving as much as half a day's installation time.

*\*These controls will not provide hot water pre-heat time control when installed with a combi boiler.*

# Greenstar controls matrix

## Control

Mechanical timers	Part no.	ErP class	% system efficiency gain	
MT10 mechanical timer	7 716 192 036	–	–	
MT10RF mechanical thermostat	7 716 192 037	I	1	
Digital and wireless programmers and room thermostats				
Comfort	7 733 600 003	–	–	
Comfort I RF	7 733 600 001	V	3	
Comfort II RF	7 733 600 002	V	3	
Advanced intelligent controls				
Sense II	7 738 111 064	VI	4 <sup>†</sup>	
Smart controls				
Wave	7 716 192 072	VI	4 <sup>†</sup>	
Wiring modules				
MS100 intelligent solar module	7 738 110 144	–	–	
Greenstar Wiring Centre	7 738 110 116			

# 4% savings are achieved when weather compensation mode is enabled.

† 4% saving is achieved when installed as a room thermostat; 2% when installed in the boiler fascia.



## Gas-fired boilers

Gas-fired boilers									
COMBI					SYSTEM <sup>^</sup>			REGULAR*	
CDi Classic <sup>2</sup>	CDi Compact	Si Compact	Greenstar i	Highflow CDi	CDi Classic System	27i System and 30i System	9i System – 24i System	27Ri and 30Ri	
✓	✓	✓	✓						
✓	✓	✓	✓						
✓	✓	✓	✓	✓	✓ <sup>1</sup>	✓	✓ <sup>2</sup>		
✓	✓	✓	✓	✓	✓ <sup>1</sup>	✓	✓ <sup>2</sup>	✓	
✓	✓	✓	✓	✓	✓ <sup>1</sup>	✓	✓ <sup>2</sup>	✓	
✓	✓	✓	✓	✓	✓ <sup>1</sup>	✓	✓ <sup>2</sup>		
✓	✓	✓	✓	✓	✓ <sup>1</sup>	✓	✓ <sup>2</sup>		
✓	✓	✓	✓	✓	✓ <sup>1</sup>	✓	✓ <sup>2</sup>		
					✓ <sup>1</sup>	✓	✓ <sup>2</sup>		
					✓	✓	✓	✓	

\* With optional wiring centre (see page 41).

<sup>^</sup> With optional integral diverter valve.

1 Manufactured after 16th January 2007 with software version CF12.10 onwards.

2 Manufactured after February 2011.

# Accessories



## Worcester CondenseSure

Part no. 7 716 192 746

✓ ***No electrical supply needed***

Zero running costs and no wiring connection, so no need for an electrician to install.

✓ ***Compatible with all boilers***

Can be installed on new or existing installations and is suitable for any gas- or oil-fired condensing boilers.

✓ ***Uses 'free' energy***

By attaching the CondenseSure to the 22mm heating flow pipework the energy from the pipe is used to heat the condensate.

✓ ***Installation flexibility***

Can be installed under the boiler or remotely.

**DID  
YOU  
KNOW**

You can extend the guarantee you can offer to your customers when you install high efficiency accessories alongside a gas-fired boiler. See more on page 48.



### **Greenstar System Filter**

Part no. 7 733 600 236 (22mm), 7 733 600 237 (28mm)

✓ ***Over-tightening prevention feature***

The removable lid has been designed to prevent over-tightening and damage to the O-ring seal, eliminating the risk of leaks.

✓ ***Isolation valve indicators***

The isolation valves can be opened using a single 90° turn, with red and green indicators showing when the filter is in operation.

✓ ***Bi-directional flow***

Engineered to allow a bi-directional flow, enabling it to be installed anywhere along the return circulation pipework between the last radiator and the boiler.



When you install Worcester products in your own home, you can claim cash back! Go to **worcesterpromotions.co.uk** for details of this and other current promotions.



### **Worcester Keyless Filling Link**

Part no. 7 716 192 610

- ✓ WRAS approved
- ✓ Simple lever operation, no key or hose required
- ✓ No risk of the end user losing or misplacing the filling link
- ✓ For safe use as a filling link with the domestic water supply.



### **Greenstar Xtra FGHR Unit**

Part no. 7 736 900 525

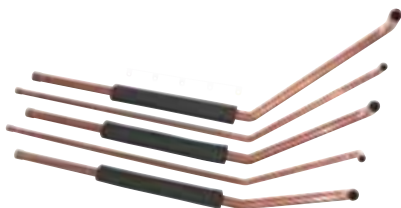
- ✓ Designed for use with Greenstar Si Compact, CDi Compact and Greenstar i combi natural gas-fired boilers
- ✓ Recognised under SAP and Green Deal as an energy saving technology.



### **Greenstar Low Loss Header**

Part no. 7 716 192 614

Ready-made solution for the connection of two Greenstar system or regular boilers on a sealed heating system with a combined output of up to 70kW.



### **Vertical Pre-piping Assembly Kits**

Part no. 7 716 192 607 (CDi Classic)

Part no. 7 716 192 651 (CDi Classic System)

Part no. 7 716 192 713\* (CDi Compact, Si Compact, Greenstar i, 27i System & 30i System)

Pre-bent and pipes have swaged-ends for easy soldering. This will save you approximately 30 minutes on installation time.

### **Earth Bonding Strip\*\***

Part no. 7 716 192 686

Looks neater and saves up to 20 minutes on installation compared with fitting separate earth bonding tags to each pipe.

*\*27i System and 30i System includes two 15mm copper pipes for use with an optional diverter valve. \*\*Comes as standard with CDi Classic.*

# Accessories' compatibility

Accessory	Part no.	
Worcester CondenseSure	7 716 192 746	
Greenstar System Filter (22mm)	7 733 600 236	
Greenstar System Filter (28mm)	7 733 600 237	
Worcester Keyless Filling Link <sup>#</sup>	7 716 192 610	
Greenstar Xtra FGHR Unit	7 736 900 525	
Greenstar Low Loss Header	7 716 192 614	
Domestic hot water combi pre-heat accessory	7 716 192 735	
<b>Kits and Earth Bonding Strip</b>		
Vertical pre-piping assembly kit	7 716 192 607	
Vertical pre-piping assembly kit	7 716 192 651	
Vertical pre-piping assembly kit*	7 716 192 713	
Earth Bonding Strip**	7 716 192 686	
Remote PRV Kit	7 716 161 071	

*\*27i System and 30i System includes two 15mm copper pipes for use with an optional diverter valve.*

*\*\*Comes as standard with CDi Classic and Highflow CDi.*

*#Comes as standard with CDi Classic combi.*

## Gas-fired boilers

Gas-fired boilers												
COMBI					SYSTEM			REGULAR				
CDi Classic	CDi Compact	Si Compact	Greenstar i	Highflow CDi	CDi Classic System	27i System and 30i System	9i System – 24i System	CDi Classic Regular	27Ri and 30Ri	12Ri – 24Ri	FS CDi Regular	
	✓	✓				✓			✓	✓		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
✓#	✓	✓	✓									
	✓	✓	✓									
					✓	✓	✓	✓	✓	✓	✓	✓
	✓											
✓												
					✓							
	✓	✓	✓			✓						
✓**	✓	✓		✓**	✓	✓	✓					
✓			✓		✓	✓	✓					

# Greenstore unvented cylinder series

Compliant with  
Building Regulation  
**G3**



- ✔ Manufactured within the Bosch Group.
- ✔ Stainless steel cylinder (providing a 25 year guarantee\*)
- ✔ Unvented, providing mains pressure hot water
- ✔ For use with Worcester system and regular boilers
- ✔ Comprehensive accessory and fittings pack
- ✔ WRAS and WRC-NSF approved
- ✔ 65mm of factory-fitted insulation producing low stand-by heat loss
- ✔ Multiple sensor/thermostat pockets allowing flexible and easy system integration with control solutions.



## Dimensions and dry weights

Diameter (mm)	Height (mm)	Weight dry (kg)	Part no.
<b>Greenstore SC-90 Cylinder</b>			
570	835	26	7 716 842 027
<b>Greenstore SC-120 Cylinder</b>			
570	1,035	31	7 716 842 028
<b>Greenstore SC-150 Cylinder</b>			
570	1,285	36	7 716 842 029
<b>Greenstore SC-180 Cylinder</b>			
570	1,490	40	7 716 842 030
<b>Greenstore SC-210 Cylinder</b>			
570	1,665	44	7 716 842 031
<b>Greenstore SC-250 Cylinder</b>			
570	1,860	48	7 716 842 032
<b>Greenstore SC-300 Cylinder</b>			
570	2,155	54	7 716 842 033

## Volumes and efficiencies

Volume domestic hot water (litres)	Standing heat loss – 24hr (kWh/24hrs)	ErP energy efficiency class/ standing heat loss (W)
<b>Greenstore SC-90 Cylinder</b>		
93	1.008	B / 42
<b>Greenstore SC-120 Cylinder</b>		
123	1.296	C / 54
<b>Greenstore SC-150 Cylinder</b>		
161	1.632	C / 68
<b>Greenstore SC-180 Cylinder</b>		
191	1.824	C / 76
<b>Greenstore SC-210 Cylinder</b>		
216	1.944	C / 81
<b>Greenstore SC-250 Cylinder</b>		
246	2.136	C / 89
<b>Greenstore SC-300 Cylinder</b>		
292	2.304	C / 96

# Greenstore solar compatible unvented cylinder series

Compliant with  
Building Regulation  
**G3**



- ✔ Manufactured within the Bosch Group.
- ✔ Stainless steel cylinder (providing a 25 year guarantee\*)
- ✔ Unvented, providing mains pressure hot water
- ✔ Twin-coil for use with two fossil fuel appliances or one fossil fuel appliance and one solar installation
- ✔ Comprehensive accessory and fittings pack
- ✔ WRAS and WRC-NSF approved
- ✔ 65mm of factory-fitted insulation producing low stand-by heat loss
- ✔ Multiple sensor/thermostat pockets allowing flexible and easy system integration with control solutions
- ✔ Dedicated solar volume in accordance with MCS scheme.

## Dimensions and dry weights

Diameter (mm)	Height (mm)	Weight dry (kg)	Part no.
<b>Greenstore TC-150 Cylinder</b>			
570	1,285	41	7 716 842 040
<b>Greenstore TC-180 Cylinder</b>			
570	1,490	45	7 716 842 041
<b>Greenstore TC-210 Cylinder</b>			
570	1,665	50	7 716 842 042
<b>Greenstore TC-250 Cylinder</b>			
570	1,860	54	7 716 842 043
<b>Greenstore TC-300 Cylinder</b>			
570	2,155	60	7 716 842 044

## Volumes and efficiencies

Volume domestic hot water (litres)	Dedicated solar volume (litres)	Standing heat loss performance (kWh/24hrs)	ErP energy efficiency class/standing heat loss (W)
<b>Greenstore TC-150 Cylinder</b>			
157	65	1.632	C / 68
<b>Greenstore TC-180 Cylinder</b>			
187	65	1.824	C / 76
<b>Greenstore TC-210 Cylinder</b>			
211	105	1.944	C / 81
<b>Greenstore TC-250 Cylinder</b>			
241	115	2.136	C / 89
<b>Greenstore TC-300 Cylinder</b>			
287	115	2.304	C / 96

# Extended guarantees

## GAS-FIRED BOILER RANGE



**5 year guarantee\*** comes as standard on:

- ✓ Any Greenstar gas-fired boiler.



**For a 6 year guarantee\***, install:

- ✓ Any Greenstar i, Si or Ri gas-fired boiler
- ✓ Greenstar System Filter.



**For a 7 year guarantee\***, install:

- ✓ Greenstar CDi gas-fired boiler
- ✓ Greenstar System Filter.

*\*Terms and conditions apply.*

## OIL-FIRED BOILER RANGE



**2 year guarantee\*** comes as standard on:

- ✓ Any Greenstar oil-fired boiler.

---

## The Greenstar System Filter

The Greenstar System Filter – available in 22mm and 28mm versions – delivers powerful system protection and is the key to an increased guarantee.



**For a 5 year guarantee\***, install:

- ✓ Any Greenstar oil-fired boiler
- ✓ Greenstar System Filter.

**For more details visit our website at  
[worcester-bosch.co.uk](http://worcester-bosch.co.uk)**

## Wall mounted condensing heat only boilers

# GB162 Commercial boiler series



Dimensions	
Width	520mm
Height	1,414mm <sup>†</sup>
Depth	465mm
Clearances	
Above flue	40mm
Left	0mm
Right	0mm
Below	350mm
Front	50mm*

<sup>†</sup>ErP only relevant to 50kW and 65kW models.

\*50mm from a removable cupboard door, 550mm from a fixed surface for servicing. Same clearances for ventilated and unventilated compartments.

<sup>†</sup>Height with pump group. Cascade options are available up to 1.6MW. For further information contact our sales team.

## Models and outputs

CH output (kW)	Part no.	LPG conversion kits
<b>GB162 50kW</b>		
15.6 to 49.9	NG 7 736 700 642	7 746 901 190
<b>GB162 65kW</b>		
15.6 to 65.0	NG 7 746 900 822	7 746 901 190
<b>GB162 80kW</b>		
20.8 to 84.5	NG 8 747 024 8	8 718 601 980
<b>GB162 100kW</b>		
20.5 to 99.5	NG 8 747 025 0	8 718 601 980

## Control options

Part no.	Description
7 747 312 318	RC35 digital boiler control
7 747 312 367	RC25 room thermostat

A full range of cascade controls and sequencers are available. For more information please contact our sales team.

## Required accessories – single boiler installation

Part no.	Description	Boiler			
		50kW	65kW	80kW	100kW
7 746 901 876	Modulating pump group – low energy	✓	✓	✓	✓
5 584 552	Connection set <sup>^</sup>	✓	✓	✓	✓
89 200 972	Low loss header c/w insulation	•	•	✓	✓
3 000 845 8	WM10 Low Loss Header Module*	•	•	✓	✓

✓ Required • Optional

GB162 boilers may be installed on open vented systems, however, a plate heat exchanger **MUST** be installed to hydraulically separate the primary and secondary sides of the system. \*For use with the RC35 digital boiler control.

<sup>^</sup>Required when boiler is wall hung.










## Flue lengths













Maximum flue lengths inc. terminal (mm)					
Diameter	Direction	50kW	65kW	80kW	100kW
125mm	Horizontal	7,700	7,700	N/A	N/A
	Vertical	7,700	7,700	N/A	N/A
150mm	Horizontal	20,000	20,000	18,000	18,000
	Vertical	20,000	20,000	18,000	18,000

**Note: 80/125mm: 50kW and 65kW – for every 90° flue bend deduct 1,900mm, for every 45° flue bend deduct 900mm.**

**Note: 100/150mm: 50, 65, 80 and 100kW – for every 90° flue bend deduct 2,100mm, for every 45° flue bend deduct 1,200mm.**

## Horizontal and vertical fluing options

Components	Part no.	Description
125mm diameter		
	7 716 191 116	Horizontal flue kit
	7 716 191 115	Vertical flue kit
	7 716 191 118	1m flue extension (cutable)
	7 716 191 117	0.5m flue extension (cutable)
	7 716 191 119	90° bend
	7 716 191 120	45° bends (pair)
	T 000 082 131	Flue support bracket (3 pack)
	7 716 191 090	Flat roof flashing
	7 716 191 091	Pitched roof flashing

150mm diameter		
	7 716 191 094	Horizontal flue kit
	7 716 191 093	Vertical flue kit
	7 716 191 096	1m flue extension (cutable)
	7 716 191 097	1m flue extension (non-cutable)
	7 716 191 095	0.5m flue extension (cutable)
	7 716 191 098	90° bend
	7 716 191 099	45° bends (pair)
	7 746 901 750	Adaptor <b>(GB162 50kW &amp; 65kW only)</b>
	7 716 191 102	Flue support bracket (3 pack)
	7 716 191 103	Clamp with EPDM seal
	7 716 191 101	Flat roof flashing
	7 716 191 100	Pitched roof flashing

# GB commercial plate heat exchangers

The GB commercial plate heat exchangers allow GB162 boilers to be fitted on an open-vented system.

The plate heat exchanger separates the primary (boiler) and secondary (heating system), therefore protecting the boiler's heat exchanger from system water by effectively creating its own sealed system. The plate heat exchanger can also be used to provide boiler protection when installing within an old, sealed secondary system. System cleansing is still recommended.



**The plate heat exchanger is sized on the basis of a boiler  $\Delta T$  of 20°C and a system  $\Delta T$  of 11°C.**

## Features and benefits

- ✔ Enhanced reliability and efficiency
- ✔ Maximises running hours, overall efficiency and availability of heating and hot water
- ✔ Improved installation flexibility
- ✔ Time saving when designing the heating system and easy to specify.

GB162	Part no.	GB162	Part no.
50kW	7 733 600 013	231-280kW	7 733 600 021
65kW	7 733 600 014	281-400kW	7 733 600 023
80-100kW	7 733 600 016	401-520kW	7 733 600 024
101-140kW	7 733 600 017	521-640kW	7 733 600 026
141-180kW	7 733 600 018	641-800kW	7 733 600 027
181-230kW	7 733 600 020		



# Greenspring CWi47 water heater



Dimensions	
Width	452mm
Height	775mm
Depth	286mm
Clearances	
Left	10mm
Right	10mm
Front	20mm*

\*20mm from a removable cupboard door, 600mm from a fixed surface for servicing. Same clearances for ventilated & unventilated compartments.

Cascade options are available for up to 12 water heaters. For further information contact our commercial technical helpline on **0330 123 3004**.

## Models and outputs

Flow rate (l/min)		Output (kW)	Part no.
ΔT 35°C	ΔT 25°C#		
Greenspring CWi47 water heater			
20.6	28.8	6 to 50.3	NG 7 703 311 082 LPG 7 703 411 078

## Accessories

Part no.	Description
7 736 500 569	Wireless Remote Control Unit (master)
7 736 500 699	Wireless Remote Control Unit (additional)
7 736 500 605	Higher Temperature Set Point Kit

## Flue lengths

Maximum flue lengths inc. terminal (mm)		
Diameter	Direction	CWi47
125mm	Horizontal	8,000
	Vertical	8,000

**Note: For every 90° flue bend deduct 2,000mm and 1,500mm for every 45° flue bend.**

## Horizontal and vertical fluing options

125mm diameter		
	7 719 003 702	Standard telescopic flue & terminal (405 - 600mm)
	7 719 002 431	Vertical 1,365mm BF kit (inc. adaptor)
	7 719 003 666	Extension flue kit (960mm)
	7 719 003 664	90° flue bend
	7 719 003 665	45° flue bend
	7 719 002 433	High level horizontal flue adaptor
	7 716 191 179	Support bracket kit
	7 716 191 090	Flashing – flat roof
	7 716 191 091	Flashing – pitched roof

# Bosch Commercial and Industrial

Offering a broad portfolio that covers all heating and cooling requirements

## Expand your business with Bosch Commercial and Industrial

The products and support services you can access gives you the chance to expand your business offering and provide installations for:

- ▶ Large domestic properties
- ▶ Hotels, guest houses and holiday parks
- ▶ Sports and leisure centres
- ▶ Education and healthcare facilities
- ▶ Mini district heating schemes
- ▶ And many more.

## Heating and hot water solutions



- ▶ Gas- or oil-fired boilers with individual outputs from 50kW to 38,000kW and standard efficiencies of up to 109%.
- ▶ Compact condensing multi-boiler cascade systems of wall-mounted boilers (400kW in just 1m<sup>2</sup>).
- ▶ Compact condensing multi-water heater cascade systems of wall-mounted water heaters (up to 600kW)
- ▶ Heat Interface Units with hot water flow rates of 14 l/min and 21 l/min
- ▶ Combined heat and power (CHP) modules with outputs ranging from 12kWe to 2MWe.



**BOSCH**

Invented for life



## Air conditioning solutions



- ▶ Air conditioning solutions with a comprehensive Variable Refrigeration Flow (VRF) range.
- ▶ Bosch Climate RAC Split range.
- ▶ All VRF products are compatible with a complete range of intelligent controls and accessories.

For more information please call **0330 123 3004**  
or visit **[bosch-industrial.co.uk](https://www.bosch-industrial.co.uk)**



**Bosch Commercial and Industrial UK**



**@BoschHeating\_UK**

# Industry training courses

For more details on classroom, industry and online courses visit our website at [worcester-bosch.co.uk/training](http://worcester-bosch.co.uk/training) or call **0330 123 0166**.

Industry focused courses	
	Hot water systems and safety
	Chemical water treatment
	WRAS water regulations
	Domestic ACS
	LPG changeover




# Product training courses

## Gas boiler courses

	Gas Overview Training Course
	Greenstar CDi & Si Compact Training Course
	Greenstar CDi Classic Combi Training Course
	Greenstar Floor-standing Gas Combi Training Course
	Greenstar Gas System & Regular Training Course
	Greenstar i Combi Training Course
	Greenstar i Junior Training Course
	Worcester Controls Training Course


## Oil boiler courses

	Advanced Oil Fault Finding Training Course
	Greenstar Oil Training Course


## Solar thermal courses

	Greenskies Solar Hot Water System Training Course
--	---

## Heat pump courses

	Greensource Air to Air Heat Pump Training Course
	Greenstore LECP Ground Source Heat Pump Training Course
	Introduction to Heat Pumps Training Course

## Commercial courses

	GB162 Training Course
	Greenspring CWi47 Continuous Flow Water Heater Training Course
	Heat Interface Unit (HIU) Training Course



*Product has online training course available.*

# Useful contacts

## Worcester

### Service Enquiries

Tel: 0330 123 9559 Email: [service.mailbox@uk.bosch.com](mailto:service.mailbox@uk.bosch.com)

### Sales

Tel: 0330 123 9669

### Spare Parts

Tel: 0330 123 9779

### Technical Helpline (Pre & Post Sales)

Tel: 0330 123 3366 Email: [technical-advice@uk.bosch.com](mailto:technical-advice@uk.bosch.com)

### Controls Helpline

Tel: 0330 123 3641

### Training

Tel: 0330 123 0166

### Literature

Email: [brochure-request@uk.bosch.com](mailto:brochure-request@uk.bosch.com) or download instantly from our website or telephone 0330 123 9119.

## Follow us!

Send us pictures of your installations and stay up to date with the latest news, views and installation tips.



@WorcesterBosch



Worcester Bosch Professional



@WorcesterBoschProfessional



Worcester Bosch



Worcester Bosch Group

Calls to and from Bosch Thermotechnology Ltd may be recorded for training and quality assurance purposes.

Worcester, Bosch Group is a brand name of Bosch Thermotechnology Ltd.

This brochure is accurate at the date of printing, but may be superseded and should be disregarded if specification and/or appearances are changed in the interest of continued improvement. The statutory rights of the consumer are not affected.

Worcester, Bosch Group,  
Cotswold Way, Warndon,  
Worcester, WR4 9SW



Part No. 8 716 116 713 Issue K 10/17